

Applicant: Markus WIDENMEYER
Docket No. R.305988
Preliminary Amdt.

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-11. (Canceled)

12. (New) In a exhaust gas system for an internal combustion engine, having a depth filter for removing soot from the exhaust gas, the depth filter including a catalyst material which promotes the oxidation of soot, the improvement wherein an internal pore structure of the depth filter comprises with a catalyst material which is liquid at an operating temperature of the depth filter, and in particular beyond a temperature of approximately no higher than 400°C, and highly preferably no higher than approximately 350°C.

13. (New) The exhaust gas system according to claim 12, wherein the catalyst material of the depth filter includes "molten salt" material, in particular $\text{Cs}_2\text{SO}_4\text{V}_2\text{O}_5$ or Cs vanadates or Ag compounds, in particular Ag vanadates.

14. (New) The exhaust gas system according to claim 12, wherein the catalyst material additionally includes: Rh and/or Pd, on such substrates as aluminum, zirconium, cerium oxides and/or mixed oxides, such as Ce/ZrO₂, or without a substrate; elements of Group 11 (Ag, Au, and/or Cu) on such substrates as aluminum, zirconium, cerium oxides and/or mixed

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oxides, such as Ce/ZrO₂, or without a substrate; oxygen-storing and -releasing materials, such as compounds of Mn, Fe, Ce, and Pr; materials that form nitrate under exhaust gas conditions (NO_x reservoir), in particular elements of the alkaline earth group, as well as of Group 3 and the rare earths; and/or materials which are distinguished by high acidity, such as zeolites and the following oxides or oxide mixtures: TiO₂, ZrO₂, SiO₂, Al₂O₃, and boric oxides.

15. (New) The exhaust gas system according to claim 12, wherein the depth filter includes an open-pore silicon carbide foam filter with pore diameters in the range of approximately 40 µm to approximately 1000 µm and with a porosity of at least approximately 60%.

16. (New) The exhaust gas system according to claim 13, wherein the depth filter includes an open-pore silicon carbide foam filter with pore diameters in the range of approximately 40 µm to approximately 1000 µm and with a porosity of at least approximately 60%.

17. (New) The exhaust gas system according to claim 14, wherein the depth filter includes an open-pore silicon carbide foam filter with pore diameters in the range of approximately 40 µm to approximately 1000 µm and with a porosity of at least approximately 60%.

18. (New) The exhaust gas system according to claim 12, further comprising a downstream surface filter; and a catalytic converter, upstream of the surface filter by which catalytic converter nitrogen dioxide is formed from the exhaust gas.

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19. **(New)** The exhaust gas system according to claim 13, further comprising a downstream surface filter; and a catalytic converter, upstream of the surface filter by which catalytic converter nitrogen dioxide is formed from the exhaust gas.

20. **(New)** The exhaust gas system according to claim 14, further comprising a downstream surface filter; and a catalytic converter, upstream of the surface filter by which catalytic converter nitrogen dioxide is formed from the exhaust gas.

21. **(New)** The exhaust gas system according to claim 15, further comprising a downstream surface filter; and a catalytic converter, upstream of the surface filter by which catalytic converter nitrogen dioxide is formed from the exhaust gas.

22. **(New)** The exhaust gas system according to claim 12, further comprising a downstream surface filter including a catalytic material on a structure of the surface filter.

23. **(New)** The exhaust gas system according to claim 13, further comprising a downstream surface filter including a catalytic material on a structure of the surface filter.

24. **(New)** The exhaust gas system according to claim 14, further comprising a downstream surface filter including a catalytic material on a structure of the surface filter.

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25. (New) The exhaust gas system according to claim 15, further comprising a downstream surface filter including a catalytic material on a structure of the surface filter.

26. (New) The exhaust gas system according to claim 22, wherein the catalyst material includes "molten salt" material, in particular $\text{Cs}_2\text{SO}_4\text{V}_2\text{O}_5$ or Cs vanadates or Ag compounds, in particular Ag vanadates.

27. (New) The exhaust gas system according to claim 22, wherein the catalyst material includes a conventional NO_x reservoir catalyst material, a conventional $\text{NH}_3\text{-SCR}$ catalyst material, and/or some other material for reducing nitrogen oxide emissions.

28. (New) The exhaust gas system according to claim 26, wherein the catalyst material includes a conventional NO_x reservoir catalyst material, a conventional $\text{NH}_3\text{-SCR}$ catalyst material, and/or some other material for reducing nitrogen oxide emissions.

29. (New) The exhaust gas system according to claim 22, wherein the surface filter comprises a cordierite filter having a cell number of from approximately 50 to approximately 300 cpsi, a porosity of approximately 50%, and a pore diameter of no larger than approximately 100 μm , preferably no larger than approximately 40 μm , even more preferably no larger than approximately 10 μm .

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30. **(New)** The exhaust gas system according to claim 22, wherein the surface filter includes a Pt catalyst material, in particular Pt- CE/ZrO₂, on its inflow side and a conventional NO_x reservoir catalyst material on its outflow side.

31. **(New)** A method for operating an internal combustion engine having an exhaust gas system according to claim 18, including continuously oxidizing soot deposited in the surface filter.